AMENDMENTS TO THE CLAIMS:

Please replace the claims with the claims provided in the listing below wherein status, amendments, additions and cancellations are indicated.

1-13.   (Cancelled)

14.   (Currently amended)   Device ~~of claim 13~~ for recording sequence information on biological compounds, comprising:

a sequencer for reading sequence information on said biological compounds;

dividing means for dividing one of text data representing a sequence of said biological compounds and numerical data obtained by converting said text data utilizing a conversion rule, into a plurality of m-bit partial data arranged in a plurality of columns in an arranged direction corresponding to a direction along which said biological compounds are placed, and in a plurality of rows in a non-arranged direction which crosses said arranged direction, where m is an integer greater than or equal to 16;

computing means for computing a first set of parity information by applying a first operation of a Galois field $GF(2^m)$ along said non-arranged direction to a set of said partial data of each column and computing a second set of parity information by applying a second operation of a Galois field $GF(2^m)$ along said arranged direction to a set of said partial data of each row; and

recording means for recording said first and second sets of parity information in a recording medium, wherein:

when α is a primitive element of a Galois field $GF(2^m)$, said first set of parity information includes a sum of a plurality of products obtained by multiplying a set of said partial data of each column along said non-arranged direction by α^{sp}, $\alpha^{s(p+1)}$, $\alpha^{s(p+2)}$, ...,$\alpha^{s(p+dp)}$, where s and p are nonnegative integers and dp is an integer greater than or equal to one; and

said second set of parity information includes a sum of a plurality of products obtained by multiplying a set of said partial data of each row along said arranged direction by α^{tq}, $\alpha^{t(q+1)}$, $\alpha^{t(q+2)}$, ..., $\alpha^{t(q+dq)}$, where t and q are nonnegative integers and dq is an integer greater than or equal to one.

15-18. (Cancelled)

19.   (Currently amended) Method ~~of claim 18~~ of utilizing sequence information on biological compounds, comprising:

recording one of text data representing a sequence of said biological compounds and numerical data obtained by converting said text data utilizing a conversion rule, in a first file;

dividing said one of text data and numerical data recorded in said first file into a plurality of m-bit partial data arranged in a plurality of columns in an arranged

direction corresponding to a direction along which said biological compounds are placed, and in a plurality of rows in a non-arranged direction which crosses said arranged direction, where m is an integer greater than or equal to 16;

computing a first set of parity information by applying a first operation of a Galois field GF(2^m) along said non-arranged direction to a set of said partial data of each column, and computing a second set of parity information by applying a second operation of a Galois field GF(2^m) along said arranged direction to a set of said partial data of each row;

recording said first and second sets of parity information in a second file;

receiving through a communications network from a supplier said first and second sets of parity information recorded on said second file;

identifying differences between said sequence of said biological compounds held by said supplier and a sequence of biological compounds subject to examination, based on said two sets of received parity information; and

when said differences cannot be recovered, receiving sequence information on a part corresponding to said differences, within said one of text data and numerical data recorded in said first file, through said communications network from said supplier, wherein:

when α is a primitive element of a Galois field GF(2^m), said first set of parity information includes a sum of a plurality of products obtained by multiplying a set of said partial data of each column along said non-arranged direction by α^{sp}, $\alpha^{s(p+1)}$,

5

$\alpha^{s(p+2)}$, ...,$\alpha^{s(p+dp)}$, where s and p are nonnegative integers and dp is an integer greater than or equal to one; and

said second set of parity information includes a sum of a plurality of products obtained by multiplying a set of said partial data of each row along said arranged direction by α^{tq}, $\alpha^{t(q+1)}$, $\alpha^{t(q+2)}$, ..., $\alpha^{t(q+dq)}$, where t and q are nonnegative integers and dq is an integer greater than or equal to one.

20-26. (Cancelled)